16 Aug. 82

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REPORT OF AUDIT

Office of Data Processing

For the Period

1 October 1980 to 30 April 1982

Summary

1. Financial and logistical controls, procedures and

records of the Office of Data Processing (ODP) were, except

as noted below, in accordance with Agency regulations.

Prior audit recommendations, with the exception of one

that pertains to disaster recovery, were satisfactorily

resolved.

We must bite the bullet and come up with a name other than "Applications"

Never heard of this unit —

2. The ODP/Deputy Directorate for Applications is

being reorganized to improve efficiency, effectiveness and

control over development and maintenance of computer systems.

The audit indicated that considerable benefit should accrue

to the Organization from these efforts and from the resulting

implementation of new and revised standards for quality

assurance in the development and maintenance function.

Employees were found to be highly committed to the objectives

of the reorganization. The ODP is to be commended for this

endeavor to improve services.

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3. This report includes comments and recommendations concerning the following:

     ° reducing the number of seldom used and unneeded
       tapes in storage to alleviate overcrowding

     ° recording additional information in the tape
       destruction process to improve security

     ° strengthening control to ensure that only
       authorized personnel can check out tapes

     ° completing a written disaster recovery plan
       to reduce service interruption in emergencies

     ° discontinuing giving out passwords over the Secure
       telephone to improve security

     ° requesting implementation of a new property
       control system to improve efficiency, and

     ° updating hand receipts as required to improve
       control over property on loan.

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Scope and Purpose

4. The audit included a review of administrative functions to evaluate the effectiveness of controls and procedures and to assure compliance with Agency regulations. Financial and logistical transactions were tested to determine that documentation, approvals and certifications were in accordance with applicable accounting and reporting requirements and to ensure that expenditures were within the scope of authorized activities.

5. The audit also included reviews and tests in both computer centers to determine that established procedures and other documentation were sufficient, adequate and followed to protect against potential security and safety risks.

6. A survey of ODP applications was performed to review the reorganization and to identify the standards and procedures to be used in the forthcoming quality assurance program. Because the reorganization is still in process, no tests were conducted to determine compliance with the standards and procedures.

Background

7.   ODP provides a central computer service to satisfy automatic data processing (ADP) requests from Agency components and to satisfy Intelligence Community requirements as assigned. In performing this service, ODP has as of 30 April 1982 a

25X9   personnel ceiling of ☐ to:

- ° review and coordinate Agency proposals for the acquisition of computer hardware (including word processing equipment), software, and services

- ° operate two computer centers (Ruffing and Special) to provide facilities and services for batch and interactive computer processing, data base management, and on-line information storage and retrieval, and

- ° perform analysis of requirements for ADP services, develop and implement application systems, perform maintenance and production control of completed application programs.

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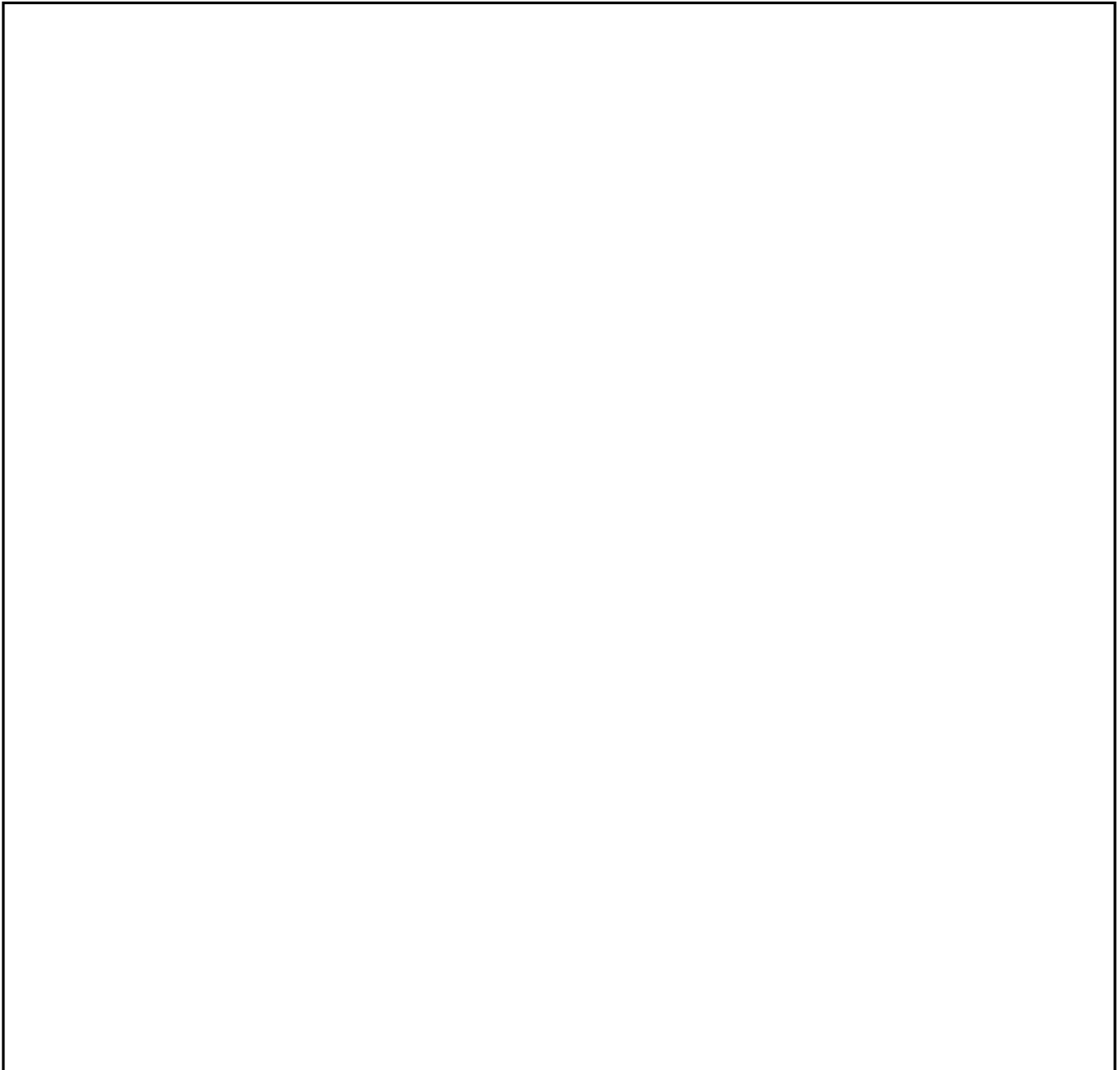
Detailed Comments

Tape Library Capacity

,10. Opportunity exists to provide needed storage space in the Ruffing Center tape library by reducing the number of

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seldom used and unneeded tapes in storage. Lack of storage

space for about 38,000 tapes requires storing approximately

4,500 of them adjacent to the library in the computer center.

This increases the already overcrowded conditions in the

center and decreases security since these tapes are not safe-

guarded by the library's additional fire protection and more

central location for improved monitoring. While the library

may ultimately need to be enlarged, it may be possible to

store all necessary tapes in the library by eliminating tapes

not requiring current access.

11. Although ODP has a policy to archive tapes not used

in six-months, space is wasted by not strictly enforcing the

policy and by honoring requests to retain such tapes in the

library beyond that time. It appears that thousands of these

tapes could be purged from the library. For example, of tapes

expiring after eleven years, audit identified 3,492 that were

unused in the previous twelve months, while 7,718 were unused

in the previous six-months. In total, twenty-five per cent,

or 8,600 of all ODP tapes were unused in the previous six-month

period tested.

12. This suggests some non-compliance with the six-month

retirement policy, possibly because ODP honors user requests to

retain such tapes in the library beyond that period. The re-

tirement policy by itself, if more strictly enforced by

retiring unused tapes to archives, could conceivably provide
the space needed in the library to eliminate storing tapes
in the computer center.

13. While tape reductions are possible by enforcing the
retirement policy, even further reductions are possible by
not automatically storing tapes unneeded during the initial
six-month storage period. Archival action on new tapes is
taken only after an initial, automatic six-month storage
period to provide time for use-patterns to develop. In the
meantime, space is wasted by automatically storing thousands
of these tapes. Also, librarians report that users waste
space in both Headquarters and archives by creating many
unnecessary tapes and tapes with over-long retention periods,
thus providing even more opportunity for reductions.

14. Reductions in such tapes are currently not possible
since no requirement exists to identify and retire them
before the expiration of the six-month storage period. A
reasonable requirement to facilitate reductions could entail
ADP Control Officers identifying such tapes on present Tape
List inventories already forwarded weekly to them for in-
formation. Since no action is presently required on these
lists, required feedback identifying suspect tapes on a

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continuing basis could provide the impetus for retiring them
to archives or scratching them on a more current basis.

15. Incentive for compliance with such a procedure could
involve requiring ADP Control Officers to certify to their
superiors the necessity for storing tapes remaining on respec-
tive lists and for using long-term expiration dates. Other
possibilities for reductions include requiring special
approval to create tapes with long-term expiration dates
together with system controls to automatically restrict their
creation without these approvals.

16. ODP should consider initiating these or other
appropriate procedures to help reduce overcrowding. Although
ODP reviewed this area about two years ago, another review
appears to be in order in accordance with [   ] Since   25X1A
storing unused tapes is a luxury not easily afforded, ODP
officers indicated a willingness to again look into this
matter for possible improvements.

> Recommendation #1: Review tape handling
> procedures to alleviate overcrowding by
> reducing the number of seldom-used and
> unneeded tapes in storage, and consider:

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° increasing compliance with the
six-month tape retirement policy

° requiring ADP Control Officers to
provide feedback identifying sus-
pect tapes

° requiring ADP Control Officers to
certify in writing the necessity
for storing tapes and using long-
term expiration dates and,

° requiring special approval to
create tapes with long-term
expiration dates.

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Tape Destruction Controls

17. Controls and security can be improved in the Ruffing
Center tape destruction process by recording additional
information in the tape destruction records. While records
contain appropriate information on tapes initially packed
by the library for destruction, they contain no information
on tapes subsequently transported from the library, degaussed
and burned. Since destruction activities expose tapes to
compromise outside the Ruffing Center, procedures should be
revised to add assurance that tapes earmarked for destruction
are actually destroyed. In addition to reflecting the initial
preparation process, the records should be expanded to reflect
pertinent information on the entire destruction process.
This should not entail new recordkeeping but only a change
in the records being kept. Present records do not reflect
this information due to library personnel being unfamiliar
with needed controls. Details for improving recordkeeping
were discussed with library personnel and they agreed to
consider audit suggestions in their quest to identify needed
revisions.

Are tapes degaussed at this point?

> Recommendation #2 : Revise tape
> destruction records to include
> information on the entire tape
> destruction process.

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Tape Check-Out Control

18. Strengthened control is needed to ensure that only authorized personnel are allowed to check out ODP tapes from both the Ruffing and Special Computer Centers. Anyone with a badge can presently check out a tape by merely identifying the reel number and dataset name. While this appears to be an adequate control, compromise is possible as various computer listings contain this information making it available to unauthorized personnel.

19. Improved security would entail matching a badge number or name to computer system information that authorizes check-out privileges. Such a control is available in the Access Control Facility-2 (ACF-2) system presently used by ODP to verify authorization to remove category Y and Z tapes. Although ODP tapes are subject to withdrawal, they have not been accorded this control because they are subject to considerably less frequent withdrawal than are Y and Z tapes. We were informed that since ACF-2 is already being used to control some tapes, it could be used to control all tapes and improve security.

> Recommendation #3 : Improve security by implementing ACF-2 procedures for withdrawal of ODP tapes from tape libraries.

Disaster Recovery Plan

20. Due to resource constraints, ODP has failed to develop
a comprehensive disaster recovery plan, despite efforts to
comply with past audit recommendations in this area. Although
ODP still intends to eventually develop a comprehensive
disaster recovery plan, their efforts to date indicate that it
will be expensive, difficult and therefore perhaps less com-
prehensive than originally envisioned. Meanwhile, ODP should
consider a more modest plan, but still capable of being
effective.

21. A more modest plan at more acceptable cost and effort
can still minimize the magnitude of service interruption in
an emergency situation. Since ODP already knows many of the
actions to take in an emergency, these actions should be
consolidated into a single planning document. Topics to
cover include: requirements in notifying management, vendor
and other personnel needed in an emergency; requirements in
effecting agreements with vendors regarding emergency
assistance and with Agency components regarding applications;
requirements in technical areas; and similar considerations.

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22. The objective of such a plan would be to implement a
practical and workable disaster recovery program within the
framework of resource constraints. Because of Agency de-
pendence on data processing, it is important that such a plan
be developed.

> Recommendation #4: Develop a disaster
>
> recovery plan that minimizes risk
>
> within resource constraints.

Password Control

23. Customer Services Staff improved security during the
audit when it ceased services giving out passwords over the *secure*
telephone. Although passwords were being provided over
secure lines to users requesting them, the inability to
properly identify the caller presented possibilities for
unauthorized access to the system. After learning of this,
ODP management gave assurance that the practice would stop.

24. This was being done as a convenience to users who
requested their passwords over the *secure* telephone after having
forgotten them. Discontinuance of this service will result

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in some regretable but necessary inconvenience to users.
ODP indicated that in the future passwords will only be
given out in person after proper identification is pre-
sented. They also explained that a procedure may be developed
to securely provide this service over computer terminals.
No recommendation is thus considered necessary.

Property Procedures

25. ODP logistics personnel maintain duplicate automated
and manual records on which to record Type II Property trans-
actions. While the automated portion augments the manual
system, supporting duplicate records is costly and time
consuming. Since ODP expends considerable effort in main-
taining one of the largest property accountability systems
in the Agency, a single system would be more efficient and
effective. Such a system exists in the Agency Standard
Automated Property System (ASAPS) recently implemented by
the Office of Logistics to satisfy requirements for Type II
property accounting and intended as a replacement for
existing systems. ASAPS would provide an online capability
and would replace many of the labor intensive and paper
dependent processes now in use. Although implementing ASAPS
would entail data conversion and orientation problems, the

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long term benefits of the system should outweigh these initial disadvantages. ODP agreed to consider replacing its present property system with ASAPS.

> Recommendation #5: Request implementation of ASAPS as a replacement for the property records currently in use.

Property on Loan Controls

26. Property items on loan for which Engineering Division is responsible are not controlled in accordance with regulations. Property on loan at the time of audit consisted of seventy-one computer terminals and related equipment. Improvement is needed in the inventory and record-keeping procedures used to control this property: The division conducts the annual inventory of property on loan over the telephone with loanees in lieu of having them re-sign hand receipts. Also, the division could not initially locate twenty-nine hand receipts for audit; apparently the receipts were lost, misplaced or never obtained.

27. Hand receipts for property on loan are required by regulation to be obtained and updated by signature at least

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annually, preferably in conjunction with the physical inventory.
During the audit the division resolved the question of missing
hand receipts by finding them, obtaining them from loanees
or effecting return of the property involved. The question
of not updating hand receipts by signature or effecting
return of the property remains to be resolved. Although
Engineering Division was fully aware of the requirement for
obtaining and maintaining hand receipts, they were not fully
aware of the requirement for obtaining annual signatures on
hand receipts. While they prefer using the convenience of
the telephone to update hand receipts, they agreed during the
audit to update them in the future as required. A recommen-
dation on obtaining and maintaining hand receipts is not
necessary since this requirement is understood and was met
during the audit.

> Recommendation #6: Update hand receipts
> for property on loan by obtaining
> signatures at least annually or effect
> return of the property involved.

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TRANSMITTAL SLIP	DATE 1 6 AU_ 1982

TO:
C/MS/ODP

ROOM NO.	BUILDING

REMARKS:

Draft of recent Audit Report. Please review and phone or send comments to EXO or [   ] by COB 20 August.

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FROM: [   ] D/ODP/DDA
2-D-00 HQS.

ROOM NO.	BUILDING

FORM NO. 241
1 FEB 55

REPLACES FORM 36-8
WHICH MAY BE USED.

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